WHAT IS CLAIMED IS:

1. A semiconductor device comprising:

source and drain semiconductor regions;

a gate electrode comprising a metal;

a channel located adjacent to said gate electrode between said source and drain semiconductor regions;

a gate insulating layer provided between said gate electrode and said channel;

source and drain electrodes connected to the source and drain semiconductor regions, respectively; and

an oxide layer comprising said metal and provided on a side of said gate electrode,

wherein a side of at least one of said source and drain electrodes is substantially aligned with a side of said oxide layer.

2. The semiconductor device of claim 1 wherein sides of both of said source and drain electrodes are substantially aligned with sides of said oxide layer.

3. The semiconductor device of claim 1 wherein said oxide layer extends on an upper surface of said gate electrode.

4. The semiconductor device of claim 1 wherein said oxide layer is in contact with said gate electrode and said at least one of said source and drain electrodes.

5. The semiconductor device of claim 1 wherein a side of corresponding one of said source and drain semiconductor regions is aligned with said side of said oxide layer.

6. The semiconductor device of claim 1 wherein said gate

electrode is distant from corresponding one of said source and drain semiconductor regions substantially by a thickness of said oxide layer in a direction from said source semiconductor region to said drain semiconductor region.

7. The semiconductor device of claim 1 wherein said oxide layer is formed by oxidizing the metal of a peripheral portion of said gate electrode.

8. A semiconductor device comprising:

source and drain semiconductor regions;

a gate electrode comprising a metal;

a channel located adjacent to said gate electrode between said source and drain semiconductor regions;

a gate insulating layer provided between said gate electrode and said channel;

source and drain electrodes connected to the source and drain semiconductor regions at side and upper surfaces of said source and drain semiconductor regions, respectively; and

an oxide layer comprising said metal and provided between said gate electrode and said source and drain electrodes.

9. The semiconductor device of claim 8 wherein said oxide layer extends on an upper surface of said gate electrode and said source and drain electrodes extend on an upper surface of said oxide layer.

10. The semiconductor device of claim 8 wherein said source and drain semiconductor regions and said channel are located in a semiconductor layer provided on a substrate and said source and drain electrodes are provided on said substrate and said side surfaces of said source and drain semiconductor regions are side

surfaces of said semiconductor layer.

11. The semiconductor device of claim 8 wherein said gate electrode is distant from said source and drain semiconductor regions substantially by a thickness of said oxide layer in a direction from said source semiconductor region to said drain semiconductor region.

12. The semiconductor device of claim 8 wherein said oxide layer is formed by oxidizing the metal of a peripheral portion of said gate electrode.

13. A method for forming a semiconductor device comprising the steps of:

forming a semiconductor film on a substrate;

forming a gate electrode comprising a metal on said semiconductor film with a gate insulating layer therebetween; and

oxidizing said metal of a peripheral portion of said gate electrode to form an oxide of said metal at least on a side surface of said gate electrode.

14. The method of claim 13 further comprising the steps of:

forming an insulating film on said substrate over said gate electrode; and

forming at least one contact hole on corresponding one of said source and drain semiconductor regions in said insulating film with a side surface of said contact hole located substantially on a side surface of said oxide.

15. The method of claim 14 wherein said contact hole forming step is carried out with said gate electrode and said oxide as a mask.

16. The method of claim 14 wherein said contact hole forming step is carried out to leave the insulating film on an upper surface of said gate electrode by the use of a photomask.

17. The method of claim 16 wherein the insulating film is left on said upper surface of said gate electrode with said oxide extending therebetween by said contact hole forming step.

18. The method of claim 13 wherein said semiconductor film forming step is carried out by forming a silicon semiconductor film containing hydrogen therein on said substrate and subsequently crystallizing said silicon semiconductor film by thermal treatment.

19. A method for forming a semiconductor device comprising the steps of:

forming a semiconductor film on a substrate;

forming a gate insulating layer on said semiconductor film;

forming a gate electrode comprising a metal on said gate insulating layer;

oxidizing said metal of a peripheral portion of said gate electrode by anodic oxidation to form an oxide of said metal at least in the vicinity of said semiconductor film;

forming an insulating film on said gate insulating layer over said gate electrode;

selectively removing the insulating film and the gate insulating layer by anisotropic etching to leave a portion of the insulating film and the gate insulating layer around a side of said gate electrode;

selectively removing the semiconductor film by etching

with said gate electrode and said oxide and the left portion of the insulating film as a mask;

exposing a portion of the semiconductor film provided under the left portion of the insulating film by removing the left portion of the insulating film and a portion of the gate insulating layer provided under the left portion of the insulating film by etching;

forming a conductive film on said substrate over said oxide and the exposed portion of the semiconductor film; and

patterning said conductive film with a mask to form source and drain electrodes which extend on said oxide and are in contact with upper and side surfaces of the exposed portion of the semiconductor film.

20. The method of claim 19 further comprising the step of implanting impurities into the exposed portion of the semiconductor film to form source and drain regions therein.

21. The method of claim 19 further comprising the step of implanting impurities into the semiconductor film with said oxide as a mask before said insulating film forming step.

22. A method for forming a semiconductor device comprising the steps of:

forming a semiconductor island on a substrate;

forming a gate insulating layer on said semiconductor island;

forming a gate electrode comprising a metal on said gate insulating layer;

oxidizing said metal of a peripheral portion of said gate electrode by anodic oxidation to form an oxide of said metal at least in the vicinity of said semiconductor island;

selectively removing the gate insulating layer with said gate electrode and said oxide as a mask;

forming an insulating film on said substrate over said oxide;

selectively removing the insulating film by anisotropic etching to leave a portion of the insulating film around a side of said gate electrode;

selectively removing the semiconductor island by etching with said gate electrode and said oxide and the left portion of the insulating film as a mask;

removing the left portion of the insulating film by etching to expose a portion of the semiconductor island provided under the left portion of the insulating film;

forming a conductive film on said substrate over the exposed portion of the semiconductor island; and

patterning said conductive film with a mask to form source and drain electrodes which extend on said oxide and are in contact with the exposed portion of the semiconductor island.